



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/607,925	06/27/2003	Thomas Hubert Van Steenkiste	DP-309452	8694
22851	7590	11/23/2005	EXAMINER	
DELPHI TECHNOLOGIES, INC.			PHAM, HOA Q	
M/C 480-410-202			ART UNIT	
PO BOX 5052			PAPER NUMBER	
TROY, MI 48007			2877	

DATE MAILED: 11/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/607,925	Applicant(s) STEENKISTE ET AL.	
	Examiner Hoa Q. Pham	Art Unit 2877	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>10/21/04</u> . | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Objections

1. Claims 5 and 8 are objected to because of the following informalities: Claims 5 and 8 should be ended by a period ".".

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-3, 5-11, and 14-15 are rejected under 35 U.S.C. 102(e) as being anticipated by Allen et al (6,506,605) (of record).

Regarding claim 1, 9 and 10, Allen et al discloses a system for sensing catalyst coating loss and efficiency comprising step of: detecting electromagnetic rays from the coating (column 21, lines 50-53 and figures 14A – 14D), establishing a predetermined benchmark (threshold range or values) (column 25, lines 21-27 or claim 46), comparing the electromagnetic rays to the benchmark (column 25, lines 21-27 or claim 46), providing a signal in response to the electromagnetic rays crossing the benchmark (claims 46 or 49).

Regarding claims 2-3, see column 21, lines 15-34 for detecting the reflectivity of the coating.

Regarding claims 5 and 8, see column 21, lines 21-24 for detecting the un-coated light rays reflecting off the un-coated section.

Regarding claims 6 and 14, see column 21, line 12 for the use of modulated light sources.

Regarding claims 7 and 11, see figures 14A and 14B of Allen et al.

Regarding claim 15, see column 21, line 11 for the use of light emitting diodes (LED).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 4, 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Allen et al.

Allen et al does not explicitly teach that the benchmark is established by the use of a second detector which detecting light passes through the passage without reflecting off the fins. However, examiner take the Official notice that using a second detector as a reference detector for establishing a benchmark is known in the art; therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to replace the stored threshold values or ranges of in Allen et al by the use of a

Art Unit: 2877

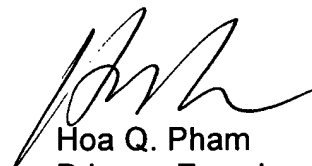
second detector for generating a reference signal so that to compare with a tested signal from the first detector because they are equivalent in function.

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Hosoe et al (US 2004/0168790) and McLean et al (2003/0066623) discloses a catalyst detector for vehicle.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hoa Q. Pham whose telephone number is (571) 272-2426. The examiner can normally be reached on 7:30AM to 6 PM, Monday through Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory J. Toatley, Jr. can be reached on (571) 272-2800 ext. 77. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Hoa Q. Pham
Primary Examiner
Art Unit 2877

HP
November 18, 2005